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**REMARKS/ARGUMENTS**

After entry of this paper, claims 2, 3, 5, 6, 23, 43-46, 51-56, 61-65, 67-69 are pending. Claims 1, 4, 7-22, 24-42, 47-50, 57-60 and 66 are canceled, without prejudice. Applicants reserve the right to prosecute any previously or currently canceled claims or subject matter in a divisional or continuation application filed during the pendency of the present application.

Claims 2-3, 5 and 6 are not the subject of any rejections. Claims 23, 44-46, 51, 54-56, 61, 62 and 65 are amended to clarify the subject matter therein, correct dependencies, and remove all grounds for rejection, as discussed below. New claims 66-69 are based upon prior claims 21, 49 and 60, respectively. Support for the amendments is also discussed with specificity below.

The pages of the specification that are amended merely reflect the recognition that the word "TAXOL" is a registered trademark for the drug paclitaxel. Please note that nocodozole and colcemid are apparently generic terms; no registered trademarks were found for those terms.

No new matter is added by these claim amendments or specification amendments.

**Objection**

*The specification is objected to because the trademarks are not capitalized. Claim 58 is objected to because it was labeled as "new" in the prior amendment.*

In view of the amendment of pages 6-8, 23, 28, 35, 36, 41-45 to replace "taxol" with "TAXOL drug" to properly recognize the trademark and the cancellation of claim 58, Applicants respectfully request reconsideration and withdrawal of this objection.

**35 USC § 112, Second Paragraph**

1. *Claims 21, 23, 43-49, 51-58, 60-65 are rejected as allegedly indefinite for use of "specifically hybridizes" in claims 21, 49 and 60.*

WST97AUSA

2. *Claim 47 is rejected for lack of antecedent basis for use of "said subject" in claim 21.*
3. *Claim 56 is rejected for lack of antecedent basis for "said mammal" in claim 49.*
4. *Claim 65 is indefinite for a typographical error*

Applicants respectfully request reconsideration and withdrawal of these rejections in view of the above amendments to the claims.

Claims 21, 49 and 60 have been cancelled and replaced with new claims 67-69, respectively. These three claims do not employ the term "specifically hybridizes", but provide for fragments of a specific length of SEQ ID NO: 1 or its antisense or from a nucleic acid sequence encoding Chfr SEQ ID NO: 2.

Claim 47 is cancelled, thereby mooted this rejection. The term "mammalian" is employed in new claim 68, thereby correcting the antecedent basis rejection of claim 56. The typographical error in claim 65 in which "65" has been corrected to "62", should satisfy the rejection of claim 65

In view of these amendments, these rejections may be withdrawn.

### 35 USC § 112, First Paragraph

1. *Claims 57-58 are rejected for alleged lack of clear written description for use of the term "reduced expression".*
2. *Claims 60-65 are rejected for lack of support, as the examiner has indicated support exists for the ranges 12 to 30 and 14 to 50 only.*
3. *Claim 65 is rejected because the nucleotide ranges in that claim are allegedly not supported.*
4. *Claims 21, 23, 44-49, 51-18 and 60-65 are rejected for failure to support "specifically hybridizes" and "complement".*
5. *Claims 47-48, 57-58 are rejected for allegedly failure to provide written description for more than a kit useful for detecting expression of SEQ ID NO: 1.*

WST97AUSA

Applicants respectfully request reconsideration and withdrawal of these rejections in view of the above amendments to the claims.

In view of the cancellation of claims 57-58 and 47-48, rejections of parts 1 and 5 above are rendered moot.

With regard to part 2 above, claim 60 is cancelled, but new claims 67-69 recite "12 to 30 or 14 to 50" to satisfy this rejection, as supported at page 17, lines 28-30.

With regard to part 3 above, the nucleotides in claim 65 correspond to the nucleotide positions that mark the nucleic acids that encode amino acids 31-103, 303-346 and 476-641 of SEQ ID NO: 2. Applicants submit that one of skill in the art could readily obtain the corresponding nucleic acid positions from a simple comparison of the nucleic acid sequence of SEQ ID NO: 1 with the amino acid sequence of SEQ ID NO: 2. Applicants submit that such sequences are readily supported by the disclosure and alignment of the two sequences and the identification of the amino acid fragments.

With regard to part 4 above, Applicants have cancelled claims 21, 49 and 60 and replaced them with independent claims 67-69, respectively to recite that the nucleic acid sequences are fragments of SEQ ID NO: 1 or its antisense or complementary sequence of specific length or fragments of a nucleic acid sequence encoding, or complementary to the coding sequence of the protein of SEQ ID NO: 2. Fragments of the *chfr* sequence are disclosed throughout the specification, and specifically on pages 2, 13, 17, 25 (see line 7) and in Table 1 of the specification. Further the term "antisense" is used in these claims, which is clearly supported in the specification at page 11, line 19 and at page 17, lines 14-27. The antisense strand is the complement of a protein-encoding nucleic acid strand, as provided in page 17, line 22-23. Since Applicants initially used the word "antisense" in the specification, the claims are introduced to use that term in place of its synonym. However, Applicants maintain that once one of skill is provided with a nucleotide sequence, the provision of its complete complement is known in the art, without further teaching.

WST97AUSA

**35 USC § 102(b) or (e) Rejections**

1. *Claims 21, and 44-48 are rejected as allegedly anticipated by JP 06303997, 1994 because the limitation of the nucleic acid sequence of claim 21 to be a fragment of the coding sequence of SEQ ID NO: 1 was not present in the claims.*

In view of the new claim 67 which recites "the protein-encoding sequence of SEQ ID NO: 1", which is supported in the specification at page 17, lines 21-24, Applicants respectfully request the withdrawal of this ground for rejection.

2. *Claims 21 and 44 are rejected as allegedly anticipated by US Patent No. 5,610,054; Claims 21 and 45 are rejected as allegedly anticipated by Gold, D. P. et al, 1993 GenBank Accession No: S86452; and Claims 21 and 46 are rejected as allegedly anticipated by George, JF et al, 1992, GenBank Accession No: S81367. The examiner states that because under low specific conditions of hybridization, the entire length of the prior art sequences would hybridize to the stated target, that these claims are anticipated.*

Applicants respectfully request reconsideration and withdrawal of this rejection for the following reasons. In view of new claim 67, which requires fragments of a certain length of the "the protein-encoding sequence of SEQ ID NO: 1", these grounds for rejection should be satisfied.

**35 USC § 103(a) Rejections**

*Claims 23 and 43 are rejected as allegedly obvious over US Patent No. 5,610,054, or Gold or George, in further view of US 5,324,630, which discloses a detectable label.*

Applicants respectfully request reconsideration and withdrawal of this rejection for the following reason. In view of the introduction of new claim 67, which does not encompass the sequences of the primary references, the addition of the fluorescent label disclosure of '630 to the primary references does not suggest the invention of the present claims. Thus the amendment should satisfy this rejection and it should be withdrawn as against all pending claims.

WST97AUSA

All rejections having been eliminated by either the above arguments or amendment of the claims, Applicants respectfully request that the examiner allow all pending claims to proceed to allowance in due course.

The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees to our Deposit Account Number 08-3040.

Respectfully submitted,

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